

REMARKS

Applicant respectfully requests reconsideration. Claims 1-84 were previously pending in this application. By this amendment, Applicant is canceling claims 1-8, 11-38, 41-42, 44, 46-62, 64-73 and 75-84, without prejudice or disclaimer. Claims 9, 10, 39, 40, 43, 45, 63 and 74 have been amended. New claims 85-115 have been added and depend from one of claims 9, 10, 39, 43, 45, 63 and 74. As a result, claims 9, 10, 39, 40, 43, 45, 63, 74 and 85-115 are pending for examination with claims 9, 10, 39, 43, 45, 63 and 74 being independent claims. No new matter has been added.

Election/Restrictions

Applicant affirms the oral election of Group I, claims 1-46 and 62-82, without traverse.

Rejections under 35 U.S.C. §112

Claims 1-46 and 62-82 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which Applicant regards as the invention.

The Patent Office has asserted that claims 1 and 62 recite "a method comprising" without defining which method is claimed. Claims 1 and 62 have been canceled. Claims 9, 10, 39, 43, 45, 63 and 74 are now independent claims and have been amended to include each element from the original claim as well as all elements of the claims from which they formerly depended. Claims 9, 10, 39, 43, 45, 63 and 74 have also been amended to recite "[a] method of detecting sulfate comprising..." and therefore now recite a specific method, as requested by the examiner.

The Patent Office has also asserted that previously pending independent claim 1 is not clear because a continuously determining step is recited, as well as a step for providing a sample comprising sulfate.

As is known to those skilled in the art, a sample need not be a discrete sample. For example, a sample may be a sample stream such as those described in the application at page 8, line 21 and at page 15, line 17. The sulfur dioxide can be continuously determined and, although not necessary, the sample may be provided continuously as well.

The Patent Office has also asserted that since no amount or concentration of sulfur dioxide is recited in the last step, that it is not clear if the "determination" of the last step means

detecting the presence of sulfur dioxide or actually refers to determining the amount of sulfur dioxide. The term “determining” means collecting and/or determining the presence or amount of a substance, as defined in the application at page 4, lines 22-25. Thus, the last step recited in amended claims 9 and 10 can mean detecting either the presence of or the quantity of sulfur dioxide, or both.

The Office Action asks what the point of detecting sulfur dioxide is if sulfur dioxide is certainly present due to the completion of the converting step. As stated in the Office Action, the claimed method includes a step of converting at least a portion of the sulfate to sulfur dioxide. However, a user of the method might be unable to tell if such a step has taken place without the additional step of determining the sulfur dioxide. The step of “continuously determining sulfur dioxide” can provide important information regarding sulfur dioxide, whether it is determining presence or quantity or both. Therefore, Applicants believe that the step of “continuously determining the sulfur dioxide” is definite and provides clarity to the claimed method.

The Patent Office has also asserted that the claims are indefinite because there is no step recited that relates determined sulfur dioxide and sulfate. As mentioned on page 11, lines 21-23 of the application as filed, results may be reported as an amount of sulfur dioxide as well as an amount of sulfate. Therefore, although the preamble, as amended, recites a method of detecting sulfate, the results need not be reported specifically in terms of sulfate. A user of the method may choose, for example, to provide data in terms of sulfur, sulfate or sulfur dioxide, and any one of these measurements can provide the information that the operator is seeking regarding the content of the sample. A molar conversion, or the like, is not necessary for detecting the amount of sulfate in the sample. Likewise, even if “only a portion” of the sulfate is converted to sulfur dioxide, and the amount of the portion is unknown, the determination of the sulfur dioxide can still provide information as to the amount of sulfate in the sample. For example, one sample could be compared to a second sample to determine relative amounts of sulfate between the two samples. Withdrawal of the rejection is respectfully requested.

The Patent Office has also asserted that claim 16 is not clear. Claim 16 has been canceled, without prejudice. Withdrawal of the rejection is respectfully requested.

The Patent Office has requested that in claims 75 and 76, PM 10 and 2.5 be replaced by “less than 10 or 2.5 microns.” Claims 75 and 76 have been canceled, without prejudice. Withdrawal of the rejection is respectfully requested.

As claim 40 and each of new claims 85-115 depend from one of claims 9, 10, 39, 40, 43, 45, 63 and 74, they are patentable for at least the above-mentioned reasons.

Rejections under 35 U.S.C. §102

Claims 1-8, 11-33, 35, 37, 38, 41, 42, 62, 64, 67-73 and 75-82 have been rejected under 35 U.S.C. §102(b) as being anticipated by one of two references. Each of these claims has been canceled, without prejudice. Withdrawal of the rejection is respectfully requested.

Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. §103

Claims 11, 34, 36, 44, 46, 65 and 66 have been rejected under 35 U.S.C. §103(a). Each of these claims has been canceled, without prejudice. Withdrawal of this rejection is respectfully requested.

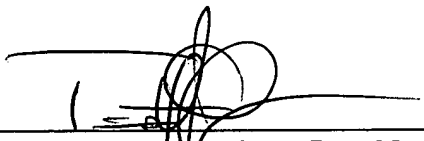
CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
George Allen et al., Applicant(s)

By:



Timothy J. Oyer, Ph.D., Reg. No. 36,628
Stephen R. Finch, Reg. No. 42,534
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
Telephone: (617) 646-8000

Docket No.: H0498.70170US00
Date: 8/8/04
x10/14/04x